IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Carlton Bartels et al.		
Application No.	:	09/967,272	Confirmation No. :	6788
Filed	:	September 28, 2001		
For	:	ELECTRONIC TRADING SYSTEM FOR SIMULATING THE TRADING OF CARBON DIOXIDE EQUIVALENT EMISSION REDUCTIONS AND METHODS OF USE		
Group Art Unit	:	3691		
Examiner	:	Daniel Kesack		

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Commissioner for Patents
P.O. Box 1450
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AMENDMENT/SUBMISSION

Sir:

This is a response to the Final Office Action mailed March 7, 2007 and to the Advisory Action mailed August 27, 2007 in the above identified application. Applicants are submitting a Request for Continued Examination for this application concurrently with this Amendment. Reconsideration of the application is respectfully requested. It is noted that the use of the word "we" hereinafter refers to Applicants.

Amendments to the Claims are reflected in the listing of claims, which begins on page 3 of this paper.

Remarks begin on page 13 of this paper.

PETITION FOR EXTENSION OF TIME

Pursuant to 37 C.F.R. § 1.136(a), we hereby petition for a three-month extension of time to respond to the Office Action dated March 7, 2007. With the extension, the time for replying is extended up to and including September 7, 2007.

The Commissioner for Patents is hereby authorized to charge Deposit Account No. 50-3938 in the amount of $1020.00 in connection with the petition for extension of time. The Commissioner for Patents is hereby authorized to charge payment of any additional filing fees required under 37 C.F.R. § 1.17 in connection with the present application, or credit any overpayment of same to Deposit Account No. 50-3938.

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (**Currently Amended**) An ~~method~~ apparatus comprising a computing device programmed to:

store for a computer-based representation of a first entity an amount of available cash;

receive from an administrator a representation of a marginal abatement cost curve, in which the marginal abatement cost curve comprises an indication of an amount of money for the first entity to produce internal reductions of carbon dioxide equivalent emissions;

based on a request received from a first user, ~~generating~~ generate for ~~a simulated~~ the first entity ~~at least one of:~~ a computer-based representation of a volume of internal reductions of carbon dioxide equivalent emissions that the first entity may produce; ~~and~~

calculate, based on the marginal abatement cost curve, a cost for the generated volume of internal reductions of carbon dioxide equivalent emissions;

based on the cost for the generated volume of internal reductions of carbon dioxide equivalent emissions, decrease for the first entity the amount of available cash;

based on a command received from the first user, purchase for the first entity credits of carbon dioxide equivalent emission reductions;

based on the purchased credits of carbon dioxide equivalent emission reductions, decrease for the first entity the amount of available cash; and

cause the amount of available cash for the first entity to be displayed to the first user.

~~in response to a simulated event that is separate from a trading of credits of carbon dioxide equivalent emission reductions, changing for the simulated entity at least one of:~~

~~a cost to generate internal reductions of carbon dioxide equivalent emissions,~~

~~a cost to generate reductions of carbon dioxide equivalent emissions in order to generate credits of carbon dioxide equivalent emission reductions, and~~

~~a volume of credits of carbon dioxide equivalent emission reductions.~~

Claim 2 (**Canceled**).

3. (**Currently Amended**) The ~~method~~ apparatus of claim [[16]] 40,

in which the first user and the second user are permitted to trade credits of carbon dioxide equivalent emission reductions during at least one trading session, in which the trading session comprises a duration of time; and

in which the computing device is further ~~comprising the step of~~ programmed, in response to an indication received from the administrator, to modify[[ing]] the ~~a real-time~~ duration ~~allotted for the trading of credits~~ of time.

4. (**Currently Amended**) The ~~method~~ apparatus of claim [[1]] 41, in which the simulated event comprises a simulated news announcement.

5. (**Currently Amended**) The ~~method~~ apparatus of claim 4, in which the computing device is further ~~comprising the step of~~ programmed to ~~causing~~ cause the simulated news announcement to be displayed to at least one of the first user and the second user.

6. (**Currently Amended**) The ~~method~~ apparatus of claim 4, in which the computing device is further ~~comprising the step of~~ programmed to:

upon receiving the simulated news announcement from the administrator, ~~storing~~ store the simulated news announcement, in which the simulated news announcement ~~haves~~ comprises a ~~specified~~ release time specified by the administrator; and

~~causing~~ cause the simulated news announcement to be displayed to at least one of the first user and the second user at the ~~specified~~ release time.

Claims 7-11 (**Canceled**).

12. (**Currently Amended**) The ~~method~~ apparatus of claim 1, in which the computing device is further ~~comprising the step of~~ programmed to:

~~receiving~~ receive ~~an input~~ from [[a]] the first user a request to form the first entity; and

in response to the ~~input~~ request, form[[ing]] the ~~simulated~~ computer-based representation of the first entity.

13. (**Currently Amended**) The ~~method~~ apparatus of claim 1, in which the computing device is further ~~comprising the step of~~ programmed to:

~~receiving~~ receive from the first user ~~an input~~ a request to review a position of the ~~simulated~~ first entity; and

in response to the ~~input~~ request, ~~causing~~ cause to be displayed to the first user an interface screen in which the interface screen comprises:

a first value representing a volume of carbon dioxide equivalent emissions emitted by the first entity;

a second value representing at least a portion of the generated volume of internal reductions of carbon dioxide equivalent emissions; and

a third value representing at least a portion of a volume of credits of carbon dioxide equivalent emission reductions ~~for~~ owned by the ~~simulated~~ first entity ~~for one or more years~~.

Claims 14-16 (**Canceled**).

17. (**Currently Amended**) The ~~method~~ apparatus of claim 1, in which the computing device is further ~~comprising the step of~~ programmed to:

~~receiving~~ receive ~~an input~~ from [[a]] the first user a request to review a simulated news announcement; and

in response to the ~~input~~ request, ~~causing~~ cause the simulated news announcement to be displayed to the first user.

Claim 18 (**Cancelled**).

19. (**Currently Amended**) The ~~method~~ apparatus of claim [[16]] 1,

in which the first user is permitted to trade credits of carbon dioxide equivalent emission reductions during trading sessions; and

in which the computing device is further ~~comprising the step of~~ programmed to:

~~receiving~~ receive from the first user ~~an input~~ a request to review a timeline of ~~one or more~~ trading sessions ~~of the trading of credits~~; and

in response to the request, cause to be displayed to the first user an interface screen in which the interface screen comprises:

an indication of a first trading session, in which the indication of the first trading session comprises a start time, an end time, and a designation that the first trading session has completed; and

an indication of a second trading session, in which the indication of second trading session comprises a start time, an end time, and a designation that the second trading session is executing.

20. (**Currently Amended**) The ~~method~~ apparatus of claim [[16]] 1,

in which the first user is permitted to trade credits of carbon dioxide equivalent emission reductions during trading sessions; and

in which the computing device is further ~~comprising the step of~~ programmed to:

~~receiving~~ receive from the first user ~~an input~~ a request to review a report at an end of ~~the~~ a trading of credits; and

in response to the request, cause to be displayed to the first user an interface screen in which the interface screen comprises:

an indication of a first trading session, in which the first trading session comprises a volume of credits of carbon dioxide equivalent emission reductions purchased by the first user for the first entity during the first trading session; and

an indication of a second trading session, in which the second trading session comprises a volume of credits of carbon dioxide equivalent emission reductions purchased by the first user for the first entity during the second trading session.

Claims 21-24 (**Cancelled**).

25. (**Currently Amended**) The ~~method~~ apparatus of claim 1, in which the computing device is further programmed to:

store a volume of credits of carbon dioxide equivalent emission reductions owned by the first entity; and

receive from the administrator a simulated event, in which the simulated event causes ~~for the simulated entity~~ a monetary value of at least a portion of the volume of credits of carbon dioxide equivalent emission reductions owned by the first entity to change.

26. (**Currently Amended**) The ~~method~~ apparatus of claim 25,

in which the volume of credits of carbon dioxide equivalent emission reductions owned by the first entity comprises a volume of allowances of carbon dioxide equivalent emissions;

in which the volume of allowances of carbon dioxide equivalent emissions comprises a volume of carbon dioxide equivalent emissions the first entity is allowed to release; and

~~for~~ in which the at least portion of the volume of credits for which the monetary value changes ~~are~~ comprises the volume of allowances of carbon dioxide equivalent emissions.

27. (**Currently Amended**) The ~~method~~ apparatus of claim 1, in which the ~~changing step~~ computing device is further programmed to:

store a volume of credits of carbon dioxide equivalent emission reductions owned by the first entity;

receive from the administrator a simulated event; and

change[[s]], based on the simulated event, the volume of credits of carbon dioxide equivalent emission reductions owned by the first entity.

28. (**Currently Amended**) The ~~method~~ apparatus of claim 27,

in which the volume of credits of carbon dioxide equivalent emission reductions owned by the first entity comprises a volume of allowances of carbon dioxide equivalent emissions;

in which the volume of allowances of carbon dioxide equivalent emissions comprises a volume of carbon dioxide equivalent emissions the first entity is allowed to release; and

~~for~~ in which to change the volume ~~changes are~~ of credits comprises to change the volume of allowances of carbon dioxide equivalent emissions.

29. (**Currently Amended**) The ~~method~~ apparatus of claim [[1]] 40, in which the ~~simulated event is at least one of~~ computing device is further programmed to:

receive from the administrator a change ~~in the cost to generate internal reductions of carbon dioxide equivalent emissions~~ to the marginal abatement cost curve;

based on another request received from the first user, generate for the first entity a computer-based representation of an additional volume of internal reductions of carbon dioxide equivalent emissions that the first entity may produce;

calculate, based on the changed marginal abatement cost curve, a cost for the additional generated volume of internal reductions of carbon dioxide equivalent emissions; and

based on the cost for the additional generated volume of internal reductions of carbon dioxide equivalent emissions, decrease for the first entity the amount of available cash

~~a change in the cost to generate reductions of carbon dioxide equivalent emissions in order to generate credits of carbon dioxide equivalent emission reductions~~.

30. (**Currently Amended**) The ~~method~~ apparatus of claim 1, in which the ~~simulated event comprises a change in~~ computing device is further programmed to:

receive from the administrator a representation of an interest rate for borrowing money;

add to the amount of available cash for the first entity a loan to cover at least one of:

the cost for the generated volume of internal reductions of carbon dioxide equivalent emissions, and

the purchased credits of carbon dioxide equivalent emission reductions; and

charge the first entity a cost for the loan based on the interest rate.

31. (**Currently Amended**) The ~~method~~ apparatus of claim 1, in which the ~~simulated~~ first entity comprises a country.

32. (**Currently Amended**) The ~~method~~ apparatus of claim 3, in which the computing device is further ~~comprising the step of~~ programmed to modify[[ing]] the ~~allotted~~ duration of time during the trading ~~of credits~~ session.

33. (**Currently Amended**) The ~~method~~ apparatus of claim 4, in which the computing device is further ~~comprising the step of~~ programmed to:

~~causing~~ cause an interface screen to be presented to ~~a simulation~~ the administrator, in which the interface screen includes ~~one or more~~ at least one field[[s]] for creating the simulated news announcement; and

receive from the administrator a value for the at least one field.

34. (**Currently Amended**) The ~~method~~ apparatus of claim [[13]] 1, in which the computing device is further ~~comprising the step of causing to be displayed~~ programmed to:

receive from the first user a request to review a position of the first entity; and

in response to the request, cause to be displayed to the first user an interface screen in which the interface screen comprises a value representing a compliance requirement for the ~~simulated~~ first entity ~~for one or more years~~, in which the compliance requirement comprises a difference between a volume of carbon dioxide equivalent emissions emitted by the first entity and a combination of at least a portion of the generated volume of internal reductions of carbon dioxide equivalent emissions and at least portion of a volume of credits of carbon dioxide equivalent emission reductions owned by the first entity.

35. (**Currently Amended**) The ~~method~~ apparatus of claim [[16]] 40,

in which the ~~step of simulating the trading of credits includes receiving~~ command received from the first user comprises at least one of:

a bid to buy credits of carbon dioxide equivalent emission reductions, and

a trade to buy credits of carbon dioxide equivalent emission reductions; and

in which the command received from the second user comprises at least one of:

an offer to sell credits of carbon dioxide equivalent emission reductions, and

a trade to sell credits of carbon dioxide equivalent emission reductions.

Claims 36-39 (**Cancelled**).

40. (**New**) The apparatus of claim 1, in which the computing device is further programmed to:

store for a computer-based representation of a second entity an amount of available cash;

receive from the administrator a representation of a supply cost curve, in which the supply cost curve comprises an indication of an amount of money for the second entity to produce reductions of carbon dioxide equivalent emissions, in which the reductions of carbon dioxide equivalent emissions produced by the second entity result in credits of carbon dioxide equivalent emission reductions that may be traded by the second entity;

based on a request received from a second user, generate for the second entity a computer-based representation of a volume of credits of carbon dioxide equivalent emission reductions;

calculate, based on the supply cost curve, a cost for the generated volume of credits of carbon dioxide equivalent emission reductions;

based on the cost for the generated volume of credits of carbon dioxide equivalent emission reductions, decrease for the second entity the amount of available cash;

based on a command received from the second user, sell for the second entity at least a portion of the generated volume of credits of carbon dioxide equivalent emission reductions;

based on the sale of the at least portion of the generated volume of credits of carbon dioxide equivalent emission reductions, increase for the second entity the amount of available cash; and

cause the amount of available cash for the second entity to be displayed to the second user.

41. (**New**) The apparatus of claim 40, in which the computing device is further programmed to:

store a volume of credits of carbon dioxide equivalent emission reductions owned by the first entity;

store a volume of credits of carbon dioxide equivalent emission reductions owned by the second entity;

receive from the administrator a simulated event; and

change, based on the simulated event, at least one of:

the volume of credits of carbon dioxide equivalent emission reductions owned by the first entity, and

the volume of credits of carbon dioxide equivalent emission reductions owned by the second entity.

42. (**New**) The apparatus of claim 1, in which the generated volume of internal reductions of carbon dioxide equivalent emissions does not result in credits of carbon dioxide equivalent emission reductions that may be traded by the first entity.

43. (**New**) The apparatus of claim 34, in which the at least portion of the volume of credits of carbon dioxide equivalent emission reductions owned by the first entity comprises a volume of allowances of carbon dioxide equivalent emissions, in which the volume of allowances of carbon dioxide equivalent emissions comprises a volume of carbon dioxide equivalent emissions the first entity is allowed to release.

44. (**New**) The apparatus of claim 43, in which the compliance requirement comprises a volume of carbon dioxide equivalent emission reductions the first entity must achieve to avoid a penalty.

45. (**New**) The apparatus of claim 44, in which the computing device is further programmed to:

receive from the administrator a representation of the volume of carbon dioxide equivalent emissions emitted by the first entity; and

receive from the administrator a representation of the volume of allowances of carbon dioxide equivalent emissions.

46. (**New**) The apparatus of claim 29, in which the computing device is further programmed to:

receive from the administrator a change to the supply cost curve;

based on another request received from the second user, generate for the second entity a computer-based representation of an additional volume of credits of carbon dioxide equivalent emission reductions;

calculate, based on the changed supply cost curve, a cost for the additional generated volume of credits of carbon dioxide equivalent emission reductions; and

based on the cost for the additional generated volume of credits of carbon dioxide equivalent emission reductions, decrease for the second entity the amount of available cash.

47. (**New**) The apparatus of claim 33, in which the at least one field comprises an amount by which the at least one of the volume of credits of carbon dioxide equivalent emission reductions owned by the first entity, and the volume of credits of carbon dioxide equivalent emission reductions owned by the second entity should change.

REMARKS/ARGUMENTS

Claims **1**, **3-6**, **12-13**, **16-17**, **19-21**, and **23-39** were pending in this application. According to the March 7, 2007 Final Office Action and to the August 27, 2007 Advisory Action, claims **1**, **3-6**, **12-13**, **16-17**, **19-21**, and **23-39** were rejected.

We have amended independent claim **1,** have amended dependent claims **3-6**, **12-13**, **17**, **19-20**, and **25-35**, and have added new dependent claims **40-47** to recite particular embodiments that we, in our business judgment, have currently determined to be commercially desirable. We have canceled independent claim **21** and dependent claims **16, 23-24,** and **36-39**. We will pursue the subject matter of the previously presented and canceled claims in one or more continuing applications. The amendments do not introduce any new matter.

Accordingly, the following claims are under consideration:

- Independent claim **1**.
- Dependent claims **3-6**, **12-13**, **17**, **19-20**, **25-35,** and **40-47.**

1.0 Response to the rejection of claim 1 under 35 U.S.C. § 101.

At paragraphs 2-3, pages 2-3 of the Office Action and at paragraph 1, page 2 of the Advisory Action, the Examiner rejected previously presented independent claim **1** under 35 U.S.C. § 101 as being directed to non-statutory subject matter and in particular, indicated that claim **1** recites an "abstract idea, and is not directed at a practical application of the abstract idea."

The Federal Circuit has held that a claimed invention need only produce a useful, concrete, and tangible result to constitute statutory subject matter under 35 U.S.C. § 101. AT & T Corp. v. Excel Communications Inc., 172 F.3d 1352, 1356 (Fed. Cir. 1999); State Street Bank v. Signature Financial Trust, 149 F.3d 1368, 1373 (Fed. Cir. 1998).

Amended claim **1** recites in part an apparatus comprising a computing device programmed to:

> *based on the cost for the generated volume of internal reductions of carbon dioxide equivalent emissions, decrease for the first entity the amount of available cash; ...*
>
> *based on the purchased credits of carbon dioxide equivalent emission reductions, decrease for the first entity the amount of available cash; and*

> *cause the amount of available cash for the first entity to be displayed to the first user.*

We respectfully submit that to "*decrease for the first entity the amount of available cash*" as recited by claim **1** and to "*cause the amount of available cash for the first entity to be displayed to the first user*" as further recited by claim **1** is a useful, concrete, and tangible result and that claim **1** is thereby directed to statutory subject matter under 35 U.S.C. § 101. Accordingly, we respectfully request that the rejection of claim **1** under 35 U.S.C. § 101 be withdrawn.

2.0 Response to the rejection of claim 21 under 35 U.S.C. § 101.

At paragraph 4, page 3 of the Office Action and at paragraph 2, page 2 of the Advisory Action, the Examiner rejected previously presented independent claim **21** under 35 U.S.C. § 101 as being directed to non-statutory subject matter. We respectfully disagree. Nonetheless, as indicated above, claim **21** has been cancelled and as such, the rejection of this claim is now moot.

3.0 Response to the rejection of claims 1, 3-6, 12-13, 16-17, 19-21, and 23-39 under 35 U.S.C. § 103(a).

At paragraphs 5-7, pages 3-8 of the Office Action and at paragraphs 2-3, page 2 of the Advisory Action, the Examiner rejected previously presented claims **1**, **3-6**, **12-13**, **16-17**, **19-21**, and **23-39** under 35 U.S.C § 103(a) as being unpatentable over Klein et al., U.S. Patent No. 6,709,330 (hereinafter Klein) in view of Sowinski, U.S. patent No. 6,601,033 (hereinafter Sowinski). As indicated, independent claim **21** and dependent claims **16, 23-24,** and **36-39** have been cancelled.

Independent claim **1** recites in part an apparatus comprising a computing device programmed to:

> *receive from an administrator a representation of a marginal abatement cost curve, in which the marginal abatement cost curve comprises an indication of an amount of money for the first entity to produce internal reductions of carbon dioxide equivalent emissions;*
>
> *based on a request received from a first user, generate for the first entity a computer-based representation of a volume of internal reductions of carbon dioxide equivalent emissions that the first entity may produce;*

> *calculate, based on the marginal abatement cost curve, a cost for the generated volume of internal reductions of carbon dioxide equivalent emissions; [and]*
>
> *based on the cost for the generated volume of internal reductions of carbon dioxide equivalent emissions, decrease for the first entity the amount of available cash.*

Klein is directed at a system for "simulating a real world options trading environment." Klein further discloses that within this system, "[s]tock and option prices are driven by semi-random movements of the price of each stock and the effect of news stories about a company." (Klein, column 1, lines 13-15; column 11, lines 65-67). Contrary to claim **1**, however, Klein has nothing to do with "*carbon dioxide equivalent emissions"* and as such, does not teach, suggest, nor disclose the above limitations of claim **1**.

Sowinski discloses a system in which "individuals" can "collect pollution credits" based on "the amount of reduced pollution they achieve" and then sell these credits to buyers. (Sowinski, column 4, line 59 to column 5, line 32; column 8, line 53 to column 9, line 7). However, Sowinski does not teach, suggest, nor disclose to "*calculate, based on the marginal abatement cost curve, a cost for the generated volume of internal reductions of carbon dioxide equivalent emissions; [and] based on the cost for the generated volume of internal reductions of carbon dioxide equivalent emissions, decrease for the first entity the amount of available cash,*" as claim **1** recites.

In addition, even assuming, *arguendo*, that it would be obvious to combine the teachings of Klein and Sowinski as asserted by the Examiner, it appears that the combination may at most result in a simulation for trading pollution credits, the trading price of which credits may vary in a semi-random way and based on the effect of news stories. However, contrary to claim **1**, such a combination is not to "*calculate, based on the marginal abatement cost curve, a cost for the generated volume of internal reductions of carbon dioxide equivalent emissions; [and] based on the cost for the generated volume of internal reductions of carbon dioxide equivalent emissions, decrease for the first entity the amount of available cash.*"

In addition, as indicated in our response of June 7, 2007, the Examiner failed to provide evidence of record to support a suggestion or motivation to modify Klein in view of Sowinski. In particular, at pages 4-5 of the Office Action, the Examiner appeared to merely conclude that because the Chicago Board of Trade supports both pollution credits and

options, one skilled in the art would have been motivated to modify the teachings of Klein in view of Sowinski. However, the Examiner presented no evidence of record to support the Examiner's conclusion, or in other words, presented no evidence of record that the Chicago Board of Trade supporting both pollution credits and options would have motivated one of ordinary skill in the art to modify Klein in view of Sowinski.

Accordingly, because Klein and Sowinski, alone or in combination, fail to teach, suggest, or disclose the above limitations of claim **1** and because the Examiner failed to provide evidence of record to support a suggestion or motivation to modify Klein in view of Sowinski, claim **1** is nonobvious in view Klein and Sowinski.

Turning to dependent claims **3-6**, **12-13**, **17**, **19-20**, and **25-35,** and new dependent claims **40-47**, because these claims depend from claim **1,** these claims are also nonobvious in view of Klein and Sowinski for at least the reasons set forth above for claim **1**.

4.0 Conclusion

Because Klein and Sowinski fail to teach or suggest claims **1, 3-6**, **12-13**, **17**, **19-20**, **25-35,** and **40-47,** these claims are clearly allowable. Favorable reconsideration and allowance of these claims are therefore requested.

We earnestly believe that this application is now in condition to be passed to issue, and such action is also respectfully requested. However, if the Examiner deems it would in any way facilitate the prosecution of this application, he is invited to telephone our undersigned representative at 212-294-7733.

Respectfully submitted,

/Glen R. Farbanish/

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Date

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